



CONTENTS OF VOLUME 121

Vol. 121A, No. 1

General Papers

R. Dmi'el

T. Wang, A. S. Abe and M. L. Glass

M. Yasumatsu, T. Yazawa, M. Otokawa,
K. Kuwasawa, H. Hasegawa and Y. AiharaI. Ibarrola, X. Larretxea, J. I. P. Iglesias,
M. B. Urrutia and E. NavarroP. Peyon, R. Calvayrac, S. Baloché and
E. Burzawa-Gérard

J. R. Pappenheimer

Y. V. Natochin, E. I. Shakhmatova,
Y. Y. Komissarchik, E. S. Snigirevskaya,
N. P. Prutskova and M. S. Brudnaya

I. J. McGaw and C. L. Reiber

Y. Kum Wan, L. Holley and R. Einstein

K. Ashizawa, M. Sakuragi and Y. Tsuzuki

G. Sahoo, R. K. Sahoo and P. Mohanty-Hejmadi

- 1 Skin resistance to evaporative water loss in viperid snakes: habitat aridity versus taxonomic status
- 7 Effects of temperature on lung and blood gases in the South American rattlesnake *Crotalus durissus terrificus*
- 13 Monoamines, amino acids and acetylcholine in the preoptic area and anterior hypothalamus of rats: measurements of tissue extracts and in vivo microdialysates
- 25 Seasonal variation of digestive enzyme activities in the digestive gland and the crystalline style of the common cockle *Cerastoderma edule*
- 35 Metabolic studies on eel (*Anguilla anguilla* L.) hepatocytes in primary culture: effect of 17 β -estradiol and growth hormone
- 45 Scaling of dimensions of small intestines in non-ruminant eutherian mammals and its significance for absorptive mechanisms
- 59 Prostaglandin-dependent osmotic water permeability of the frog and trout urinary bladder
- 67 Circulatory modification in the blue crab *Callinectes sapidus*, during exposure and acclimation to low salinity
- 77 Ventricular fibrillation and defibrillation thresholds in sheep and dogs
- 83 Temperature-dependent flagellar motility of demembranated, cytosol-free fowl spermatozoa
- 91 Calcium metabolism in olive ridley turtle eggs during embryonic development

Instructions to Authors

Vol. 121A, No. 2

ReviewA. C. Puviani, C. Ottolenghi, B. Tassinari, P. Pazzi
and E. Morsiani

- 99 An update on high-yield hepatocyte isolation methods and on the potential clinical use of isolated liver cells

General papers

G. Terova, M. Saroglia, Z. G. Papp and S. Cecchini

M. T. Lima-Landman and A. J. Lapa

U. Totzke and F. Bairlein

M.-A. Beaulieu and H. Guderley

A. Stucchi-Zucchi and L. C. Salomão

T. Sasaki, K. Shimada and N. Saito

D. W. Burgess, W. S. Marshall and C. M. Wood

- 111 Dynamics of collagen indicating amino acids, in embryos and larvae of sea bass (*Dicentrarchus labrax*) and gilthead sea bream (*Sparus aurata*), originated from broodstocks fed with different vitamin C content in the diet
- 119 Gender does not influence neuromuscular properties in dimorphic skeletal muscles of the toad
- 127 The body mass cycle of the migratory garden warbler (*Sylvia borin*) is associated with changes of basal plasma metabolite levels
- 135 Changes in qualitative composition of white muscle with nutritional status of Atlantic cod, *Gadus morhua*
- 143 The ionic basis of membrane potentials and adaptation to hyposmotic stress in *Perna perna*, an osmoconforming mollusc
- 149 Changes of AVT levels in plasma, neurohypophysis and hypothalamus in relation to oviposition in the laying hen
- 155 Ionic transport by the opercular epithelia of freshwater acclimated tilapia (*Oreochromis niloticus*) and killifish (*Fundulus heteroclitus*)

- B.-K. Kim, H. Ozaki, M. Hori, K. Takahashi and H. Karaki
 L. Renwanz, W. Schmalmack and M. Steenbuck
 T. M. Clark, A. R. Koch and D. F. Moffett
 O. Brix, K. D. Clements and R. M. G. Wells
 A. L. Bykov, I. Damjanović, I. A. Utina, B. Mićković, Z. Gačić and R. K. Andjus
- 165 Increased contractility of rat uterine smooth muscle at the end of pregnancy
 175 Molecular size of native proteins of *Mytilus* serum which contains a dominant fraction with heavy metal-binding properties
 181 Alkalinization by *Manduca sexta* anterior midgut in vitro: requirements and characteristics
 189 An ecophysiological interpretation of hemoglobin multiplicity in three herbivorous marine teleost species from New Zealand
 197 Electrophysiological and spectral properties of second-order retinal neurons in the eel
 Instructions to authors

Vol. 121A, No. 3

- I. A. Al-Nasser
 V. M. Rodrigues, A. M. Soares, A. C. Mancin, M. R. M. Fontes, M. I. Homs-Brandeburgo and J. R. Giglio
 T. Ichikawa, K. Ishihara, K. Nozue, S. Miyazawa, N. Nemoto and K. Hotta
 S. A. Ali, J. Peter and A. S. Ali
 N. Saito and R. Grossmann
 D. J. Mayo and D. Burton
 A. Mæland and R. Waagbø
 J.-C. Chen and J.-S. Chen
 J. Rose, M. Kennedy, B. Johnston and W. Foster
 T. M. Mäkinen, H. Rintamäki, J. Karpakka, J. Komulainen and R. Hissa
 P. Soudant, Y. Marty, J. Moal, H. Masski and J. F. Samain
 T. Kojima, M. Nishimura, T. Yajima, T. Kuwata, Y.-i. Suzuki, T. Goda, S. Takase and E. Harada
- 209 In vivo prevention of cyclophosphamide-induced Ca^{2+} dependent damage of rat heart and liver mitochondria by cyclosporin A
 215 Geographic variations in the composition of myotoxins from *Bothrops neuwiedi* snake venoms: biochemical characterization and biological activity
 223 Serum and antral gastrin levels in fed and fasted rats: relation to aging
 229 Histamine receptors in the skin melanophores of Indian bullfrog *Rana tigerina*
 235 Effects of short-term dehydration on plasma osmolality, levels of arginine vasotocin and its hypothalamic gene expression in the laying hen
 241 The in vitro physiology of melanophores associated with integumentary patterns in winter flounder (*Pleuronectes americanus*)
 249 Examination of the qualitative ability of some cold water marine teleosts to synthesise ascorbic acid
 257 Acid-base balance, ammonia and lactate levels in the haemolymph of *Penaeus japonicus* during aerial exposure
 263 Serum prolactin and dehydroepiandrosterone concentrations during the summer and winter hair growth cycles of mink (*Mustela vison*)
 273 Submaximal exercise in the cold: does cooling potentiate the development of muscle injuries in the rat?
 279 Fatty acid composition of polar lipid classes during larval development of scallop *Pecten maximus* (L.)
 289 Effect of intermittent feeding on the development of disaccharidase activities in artificially reared rat pups
 Instructions to Authors

Vol. 121A, No. 4

General papers

- C. L. Rowe
 A. A. M. El-Shafey
 C. Y. Lin, S. H. Chen, G. H. Kou and C. M. Kuo
 S. A. Ali, S. Stoeva, J. Schütz, R. Kaye, A. Abassi, Z. H. Zaidi and W. Voelter
 S. D. Crissey, P. McGill and A.-M. Simeone
- 299 Elevated standard metabolic rate in a freshwater shrimp (*Palaemonetes paludosus*) exposed to trace element-rich coal combustion waste
 305 Effect of ammonia on respiratory functions of blood of *Tilapia zilli*
 315 Identification and characterization of a hyperglycemic hormone from freshwater giant prawn, *Macrobrachium rosenbergii*
 323 Purification and primary structure of low molecular mass peptides from scorpion (*Buthus indicus*) venom
 333 Influence of dietary vitamins A and E on serum α - and γ -tocopherols, retinol, retinyl palmitate and carotenoid concentrations in Humboldt penguins (*Spheniscus humboldti*)

- R.-J. Spencer, M. B. Thompson and I. D. Hume
- E. Cataldi, P. Di Marco, A. Mandich and S. Cataudella
- T. W. Ehlers and K. G. Vogel
- J. Šula, R. Socha and R. Zemek
- S. O. Andersen
- C. M. Luquet, C. O. Cervino, M. Ansaldo, V. C. Pereyra, S. Kocmur and R. E. Dezi
- S. M. Rankin, C. S. Garside, C. A. Christopher and S. S. Tobe
- K. Iwatsuki, M. Nishidoi and K. Suehiro
- M. Z. Fan, O. Adeola, M. I. McBurney and C. I. Cheeseman
- A. Chwalibog, K. Jakobsen, A.-H. Tauson and Grete Thorbek
- S. K. Malham, C. L. Coulson and N. W. Runham
- C. H. To and S. A. Hodson
- 341 The diet and digestive energetics of an Australian short-necked turtle, *Emydura macquarii*
- 351 Serum parameters of Adriatic sturgeon *Acipenser naccarii* (Pisces: Acipenseriformes): effects of temperature and stress
- 355 Proteoglycan synthesis by fibroblasts from different regions of bovine tendon cultured in alginate beads
- 365 Wing morph-related physiological differences in adults of temperate population of *Pyrrhocoris apterus* (L.) (Heteroptera: Pyrrhocoridae)
- 375 Characterization of proteins from arthroal membranes of the lobster, *Homarus americanus*
- 385 Physiological response to emersion in the amphibious crab *Chasmagnathus granulata* Dana (Decapoda Grapsidae): biochemical and ventilatory adaptations
- 395 Partial characterization and isolation of earwig 'allatostatins': biological activities in earwigs and cockroaches
- 405 Symbiotic *Chlorella* enhances the thermal tolerance in *Paramecium bursaria*
- 411 Kinetic analysis of L-glutamine transport into porcine jejunal enterocyte brush-border membrane vesicles
- 423 Heat production and substrate oxidation in rats fed at maintenance level and during fasting
- 431 Effects of repeated sampling on the haemocytes and haemolymph of *Eledone cirrhosa* (Lam.)
- 441 The glucose transport in retinal pigment epithelium is via passive facilitated diffusion
- I Volume Contents, Subject and Author Index for Vol. 121A
- Instructions to Authors